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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/800,549

03/15/2004

Thomas J. Ribarich

IR-2459 (2-3924)

9792

7590

07/18/2006

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EXAMINER

HAN, YOUNGHUIE JESSICA

ART UNIT

PAPER NUMBER

2838

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/800,549

Applicant(s)

RIBARICH ET AL.

Examiner

Y. J. Han

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-12,14-23,25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-12 and 14-19 is/are allowed.
- 6) ☒ Claim(s) 1,20-23,25 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albrecht et al (5,654,881) in view of Hwang (5,894,243).

Albrecht et al discloses a power converter for delivering power to a load, comprising: a single stage buck-boost converter (10) for converting a rectified input signal; a switching output stage (10b) for converting the DC signal to a switched signal delivered to the load; and a controller (22) coupled to the buck-boost converter and the output stage for controlling the buck-boost converter and the output stage; wherein the buck-boost converter includes a switch (18-1,18-2) driven by the controller; drive signals (G1, G2) provided from the controller to the switch, the drive signals being operable to switch the switch to draw an input current

substantially in phase (see figure 2) with an input voltage; a feedback signal (22a) from the buck-boost converter to the controller for contributing to determining when the switched is switched.

“For power factor correction applications, this push-pull converter, by transitioning between the Boost and Buck operating modes, is able to shape the input current.” The reference further discloses a circuitry for maintaining the output power constant by receiving the indication of output power and responsively controlling the drive signals provided to the switch to control an on-time of the switch. See column 3, lines 57 thru column 4, line 11. Albrecht et al, however, does not disclose a controller comprising a single IC coupled to both the buck-boost converter and the output stage. Hwang teaches that the use of an integrated circuit comprising various circuit elements for controlling the buck converter or boost converter is well known in the art. See Figs. 4, 18, and the integrated circuits 100 and 200. Thus, it would have been obvious to one having ordinary skill in the art to employ the single IC to integrate components in Albrecht et al, as taught by Hwang, to obtain the claimed invention for the purpose of achieving compact power converter package.

4. Claims 20-22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albrecht et al (5,654,881) in view of Hwang (5,894,243) as applied to claims 1, 23, and 25 above, and further in view of acknowledged prior art.

Albrecht et al, as modified by Hwang, discloses the invention substantially as claimed but does not disclose a switching full-bridge, an HID lamp, and a power factor correction circuit. The acknowledged prior art clearly teaches that use of such features is well known in the art (see Background of the Invention section and figure 5 which show all features). Therefore, it would

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have been obvious to one having ordinary skill in the art to employ such features of the acknowledged prior art in Albrecht et al, as modified by Hwang, to obtain the claimed invention for the purpose of attaining a high efficiency.

Response to Arguments

5. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter


6. Claims 4-12 and 14-19 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. J. Han whose telephone number is 571-272-2078. The examiner can normally be reached on Mon-Fri 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JESSICA HAN
PRIMARY EXAMINER